

**TWO NEW GENERA AND FOUR NEW SPECIES OF COLPURINI
(HETEROPTERA: COREIDAE: COREINAE) FROM NEW GUINEA**

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Abstract.—**Halohygia**, new genus, with three new species *H. impensa*, *H. inculta*, and *H. tensa*, and **Neohalohygia**, new genus, with one new species, *N. parallela*, from New Guinea, are described in the tribe Colpurini (Coreidae). Habitus illustrations and drawings of the male and female genitalia, head, and pronotum are included.

Key Words: Insecta, Heteroptera, Coreidae, Colpurini, new genera, new species, New Guinea

The Colpurini constitute one of the dominant elements in the coreoid fauna of the Indo-Pacific (Brailovsky 2000). The tribe is abundant and diverse, and for the most part it consists of species adapted to forest habitats although there has been radiation into many other ecological niches. These insects are usually black or dark colored and are striking in the great diversity of the male genital capsule and female genital plates (Brailovsky 1990).

Here we add two new genera and four new species. Striking features of these new genera are located on the lower third of gonocoxae I which is conspicuously projected, bladelike, and directed outward and slightly upward.

The following abbreviations are used for the institutions cited in this paper: BPBM (Bernice P. Bishop Museum, Honolulu, Hawaii); RNHL (Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands); UNAM (Instituto de Biología, Universidad Nacional Autónoma de México); ZMHB (Zoologisches Museum, Humboldt Universität, Berlin, Germany).

All measurements are given in millimeters.

***Halohygia* Brailovsky and Barrera,
New Genus**

Diagnosis.—*Halohygia*, like the closely related genera *Ashlockhygia* Brailovsky and Ortega (1994) and *Kerzhnerhygia* Brailovsky (1993), are the only Colpurini that have the lower third of gonocoxae I conspicuously elongated, resembling a blade (Fig. 8).

Kerzhnerhygia has the antenniferous tubercle armed with a large spine, converging or diverging anteriorly. In the other two genera the antenniferous tubercle is unarmed.

Halohygia can be defined by having the femora unarmed; the pronotal disc clearly bilobed and tapering cephalad; in lateral view with the anterior lobe distinctly lower than the posterior lobe and the calli weakly convex; and the rostrum reaching the middle third of abdominal sternite IV or V, with the apical margin of endocorium punctate. In *Ashlockhygia*, the femora are armed; the pronotum is not clearly bilobed; the calli are remarkably raised forming a large conical lobe, separated along the midline by a short longitudinal furrow; and the rostrum reaching the middle third of abdominal ster-

nite VI, with the apical margin of the endocorium impunctate. The body of the new genus is slender and shorter than 9.60 mm, and in *Ashlockhygia* robust and longer than 11.30 mm.

Generic description.—Body small to medium-sized, not depressed. *Head:* Longer than wide, wider than long, or as long as wide, non declivant, pentagonal, and dorsally flat; tylus apically globose and entire, extending anteriorly to and laterally higher than juga; juga unarmed, narrowed, shorter than tylus; antenniferous tubercles, genae, mandibular plate, and head in front of eye unarmed; antennal segment I robust, thickest, and slightly curved outward; segments II and III cylindrical, and slender, and segment IV fusiform; segment II longest, segment IV shortest, and III subequal to I; ocelli weakly elevated, and close to eye; preocellar pit deep; eyes spherical; postocular tubercle protuberant, globose; buccula rounded, elevated, short, not extending beyond antenniferous tubercle, angulate or with tiny and blunt middle projection, and posteriorly closed; rostrum reaching anterior third of abdominal sternite IV or V.

Thorax: Pronotum wider than long, trapeziform, steeply declivant, clearly bilobed, with anterior lobe including collar shorter than posterior lobe; pronotal disc tapering cephalad with anterior lobe flattened and weakly convex; in lateral view anterior lobe distinctly lower than posterior lobe; collar wide, with posterior demarcation deeply incised by a narrow groove; anterolateral margins obliquely straight, and slightly sinuate and emarginate; posterolateral margins straight to weakly convex; posterior border straight; frontal angles slightly produced forward as small rounded expansions; humeral angles obtusely rounded, not exposed; calli weakly convex, separated along midline by short longitudinal furrow; posterior margin with distinct transverse impression; posterior lobe irregularly wrinkled; anterior lobe without wrinkles. Anterior lobe of metathoracic peritreme reniform, posterior lobe sharp, small; evapora-

tive area reduced; mesosternum with a shallow, median, longitudinal furrow.

Legs: Unarmed; tibiae cylindrical, sulcate.

Scutellum: Triangular, longer than wide or as longer than width; disc with Y-shape elevation and posteriorly with a shallow lateral depression; apex subacute, and elevated as a minute bulb.

Hemelytron: Macropterous, reaching apex or slightly beyond last abdominal segment; apical margin of endocorium punctate.

Abdomen: Connexivum higher than terga; posterior angle of each connexival segment complete, not extending on a short spine; abdominal sterna with medial longitudinal furrow, extending to posterior border of sternite IV.

Integument: Body surface rather dull, clothed with short, decumbent silvery bristlelike setae; pubescence of antenna, femora and tibiae intermixed with short and erect setae; antenna minutely granulate; posterior lobe of pronotum, scutellum, clavus, corium, ventral surface of head, thorax, abdominal sterna, and exposed parts of genital segments of both sexes strongly punctate; femora with or without small tubercles or granules along ventral and eventually dorsal surface.

Male genitalia: Genital capsule: Posteroventral edge in caudal view simple, broadly and shallowly emarginate, with lateral arms short and rounded (Fig. 3), or with posteriorventral edge in caudal view with broad and open notch, with lateral arms blunt and rounded (Fig. 5), or with posteroventral edge in caudal view trilobate, with lateral arms rounded, and mesial lobe acute (Fig. 4). Paramere: Body elongate, or robust, with apical third almost straight (Figs. 9–11).

Female genitalia: Abdominal sternite VII entire, without plica or fissura. Genital plates: Gonocoxae I enlarged dorsoventrally, with lower third conspicuously projected, bladelike, and directed outward and slightly upward; in caudal view closed, in

lateral view straight; paratergite VIII short, triangular, with spiracle visible; paratergite IX squarish, larger than paratergite VIII (Fig. 8).

Etymology.—From the Latin *halitus*, meaning odor, fragrance, exhalation.

Type species.—*Halohygia impensa* Brailovsky and Barrera, new species.

***Halohygia impensa* Brailovsky and Barrera, new species**

(Figs. 4, 8–9)

Description.—*Measurements*: Male first, female second: Head length 1.40, 1.38; width across eyes 1.36, 1.38; interocular space 0.74, 0.76; interocellar space 0.26, 0.28; preocular distance 0.88, 0.86; length antennal segments: I, 1.48, 1.42; II, 2.32, 2.28; III, mutilated, 1.40; IV, mutilated, 0.98. Pronotum: Total length 1.80, 2.02; maximum width across anterior lobe 1.68, 1.80; maximum width across posterior lobe 2.84, 3.32. Scutellar length 1.34, 1.44; width 1.12, 1.44. Total body length 9.18, 9.40.

Male.—*Dorsal coloration*: Head dark chestnut orange, with space between ocelli and eye, and dorsal surface of postocular tubercle dark yellow; antennal segments I to III chestnut orange, and IV pale yellow with basal joint dark chestnut orange; pronotal disc dark chestnut orange with lateral margins of collar, anterolateral margins, outer margin of humeral angles, and irregular longitudinal stripe above humeral angles yellow; scutellum dark chestnut orange with apex yellow; clavus and corium dark chestnut orange, with costal margin yellow; hemelytral membrane dark ambarine with veins brown; connexivum dark reddish brown with posterior margin yellow; dorsal abdominal segments bright orange with posterior margin of segment VII brown. *Ventral coloration*: Head dark chestnut orange with anterior margin of buccula dark yellow; rostral segments I to IV pale chestnut orange with yellow reflections; thorax dark chestnut orange with inner margin of acetabulae, and irregular marks on propleu-

ron, mesopleuron, and metapleuron yellow; anterior lobe of metathoracic peritreme pale yellow, and posterior lobe chestnut orange; coxae and trochanters dark chestnut orange; femora and tibiae dark chestnut orange with two yellow rings, one subbasal, other near middle third; tarsi dark chestnut orange with yellow reflections; abdominal sterna ochre yellow with punctures chestnut orange; genital capsule dark reddish brown.

Rostrum reaching anterior third of abdominal sternite IV. Genital capsule: Posteroventral edge in caudal view trilobate, with lateral arms rounded and mesial lobe acute (Fig. 4). Paramere: Body robust with apical third straight (Fig. 9).

Female.—Similar to male. Connexival segments VIII and IX pale chestnut orange with posterior margin yellow; dorsal abdominal segments VIII and IX dark chestnut brown; genital plates ochre yellow with punctures chestnut orange. Rostrum reaching posterior margin of abdominal sternite IV. Genital capsule: Fig. 8.

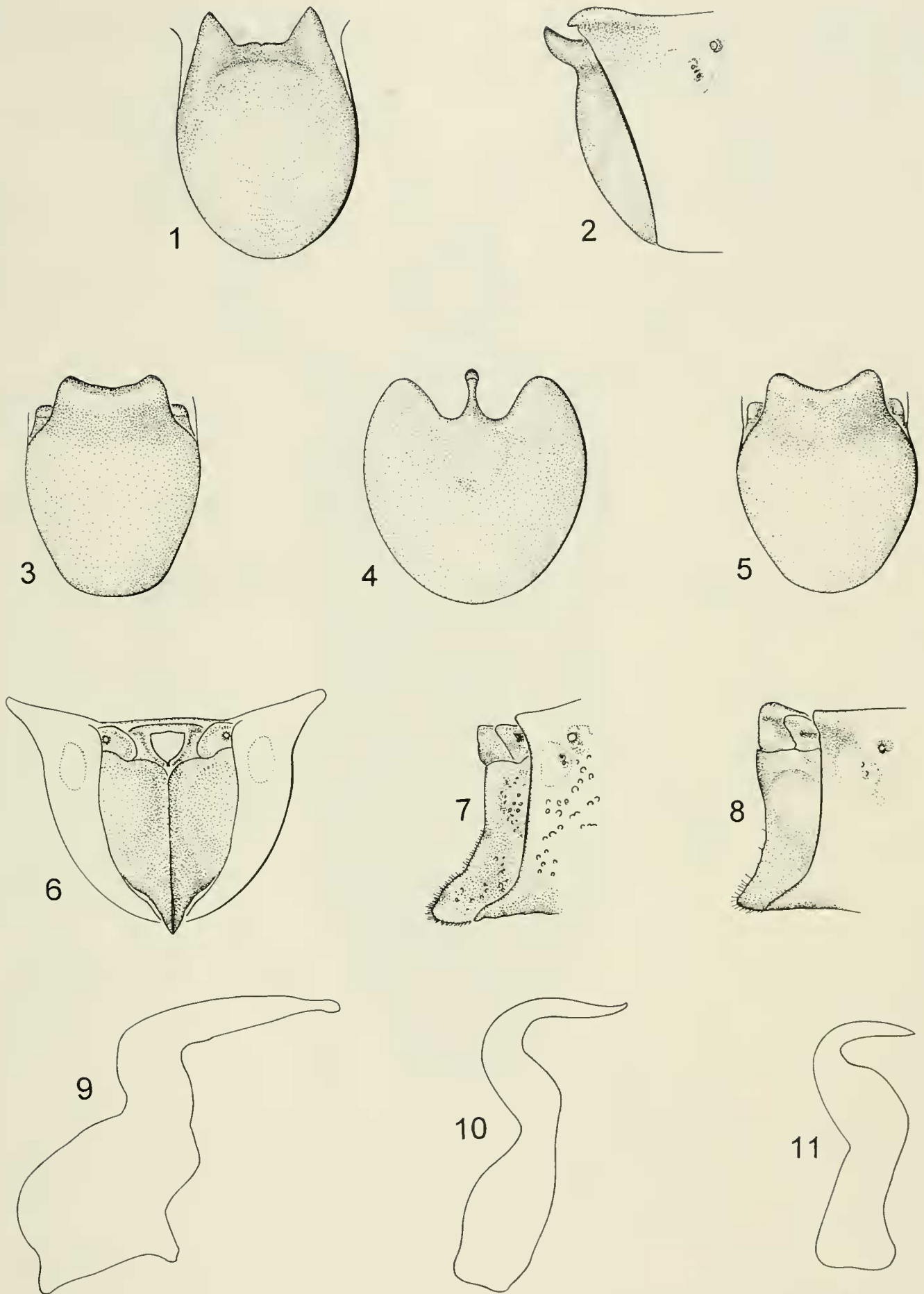
Type material.—Holotype: ♂, Neth New Guinea, Mountain slope above Bernhard Camp (Neth. Ind. American Expedition), 750 m, 19 March 1939, L. J. Toxopeus (RNHL). Paratypes: 1 ♀, Neth New Guinea, Rattan Camp (Neth. Ind. American Expedition), 500 m, 1–5 February 1939, L. J. Toxopeus (RNHL); 1 ♀, Neth New Guinea, Vogelkop, Bomberi, 700–900 m, 5 June 1959, J. L. Gressitt (BPBM); 3 ♀, Dutch New Guinea, Hunsteinpitze (Kais Augustafel Exp.), 25 February 1913, and 1 March 1913, S. G. Burgers (UNAM, ZMHB).

Etymology.—From the Latin *impensus*, for large, referring to the size of the insect.

***Halohygia inculta* Brailovsky and Barrera, new species**

(Figs. 3, 11)

Description.—*Measurements*: Male: Head length 1.22; width across eyes 1.28; interocular space 0.72; interocellar space 0.26; preocular distance 0.78; length antennal segments: I, 1.28; II, 2.04; III, 1.20; IV, 0.92. Pronotum: Total length 1.68; maxi-



Figs. 1-11. 1-5, Male genital capsule. 1-2, *Neohalohygia parallela*. 1, Caudal view. 2, Lateral view. 3-5, *Halohygia* spp., caudal view. 3, *H. inculta*. 4, *H. impensa*. 5, *H. tensa*. 6-8, Female genital capsule. 6-7, *Neohalohygia parallela*. 6, Caudal view. 7, Lateral view. 8, *Halohygia impensa*, lateral view. 9-11, Parameres of *Halohygia* spp. 9, *H. impensa*. 10, *H. tensa*. 11, *H. inculta*.

maximum width across anterior lobe 1.56; maximum width across posterior lobe 2.80. Scutellar length 1.28; width 1.24. Total body length 8.20.

Male.—*Dorsal coloration*: Head chestnut orange with dorsal surface of postocular tubercle yellow; antennal segments I to III ochre yellow with orange reflections, and IV pale yellow with basal joint dark brown; pronotal disc chestnut orange with lateral margins of humeral angles and irregular transverse fascia above humeral angles dirty yellow; scutellum chestnut orange with apex yellow; clavus and corium chestnut orange; hemelytral membrane dark brown; connexivum dark reddish brown with posterior margin yellow; dorsal abdominal segments bright orange with posterior margin of VII dark brown. *Ventral coloration*: Head chestnut orange with anterior margin of buccula yellow; rostral segments I to IV, mesosternum and metasternum pale chestnut orange; propleuron, mesopleuron, and metapleuron dirty yellow with punctures bright chestnut orange; anterior lobe of metathoracic peritreme dirty yellow, and posterior lobe chestnut orange; coxae, trochanters, and fore and middle femora pale orange yellow; hind femur and tibiae dark chestnut, with two yellow rings, one subbasal, other near middle third; tarsi yellow, with orange reflections; abdominal sterna bright chestnut orange with yellow marks irregularly distributed; pleural margin bright orange, with posterior margin yellow; genital capsule dark reddish brown.

Rostrum reaching anterior third of abdominal sternite V. Genital capsule: Posteroventral edge in caudal view simple, broadly and shallowly emarginate, with lateral arms short and rounded (Fig. 3). Paramere: Elongate with apical third slightly straight (Fig. 11).

Female.—Unknown.

Type material.—Holotype: ♂, Dutch New Guinea, Lager, 1050 m, (Augustafl Exp.), August 1912, S. G. Burgers (ZMHB).

Etymology.—From the Latin *incultus*,

for uncultivated, referring to the relatively undistinguished nature of the species.

Halohygia tensa Brailovsky and Barrera, new species

(Figs. 5, 10, 13)

Description.—*Measurements*: Male: Head length 1.36; width across eyes 1.32; interocular space 0.72; interocellar space 0.24; preocular distance 0.78; length antennal segments: I, 1.28; II, 2.04; III, 1.32; IV, 1.00. Pronotum: Total length 1.72; maximum width across anterior lobe 1.64; maximum width across posterior lobe 2.76. Scutellar length 1.38; width 1.28. Total body length 8.30.

Male.—*Dorsal coloration*: Head chestnut orange with antenniferous tubercle, space between ocelli and eye, and dorsal surface of postocular tubercle yellow; antennal segment I ochre yellow with orange reflections, II and III dark orange, and IV pale yellow with basal joint dark orange; pronotal disc chestnut orange, with anterolateral margins, lateral margin of humeral angles, and irregular transverse fascia above humeral angles dirty yellow; scutellum chestnut orange with apex yellow; clavus and corium pale chestnut orange with punctures dark reddish brown; hemelytral membrane dark brown yellow; connexivum dark reddish brown with posterior margin yellow; dorsal abdominal segments bright orange with posterior third of VII dark orange brown. *Ventral coloration*: Head dark chestnut orange, with anterior margin of buccula yellow; rostral segments I to IV dirty yellow with pale brown reflections; mesosternum and metasternum chestnut orange; propleuron, mesopleuron, and metapleuron dirty yellow with punctures bright pale chestnut orange; anterior lobe of metathoracic peritreme dirty yellow, and posterior lobe chestnut orange; coxae and trochanters pale bright orange yellow; fore and middle femora pale bright orange yellow with two yellow rings, one subbasal, other near middle third; hind femur and tibia dark chestnut orange with two yellow rings, one

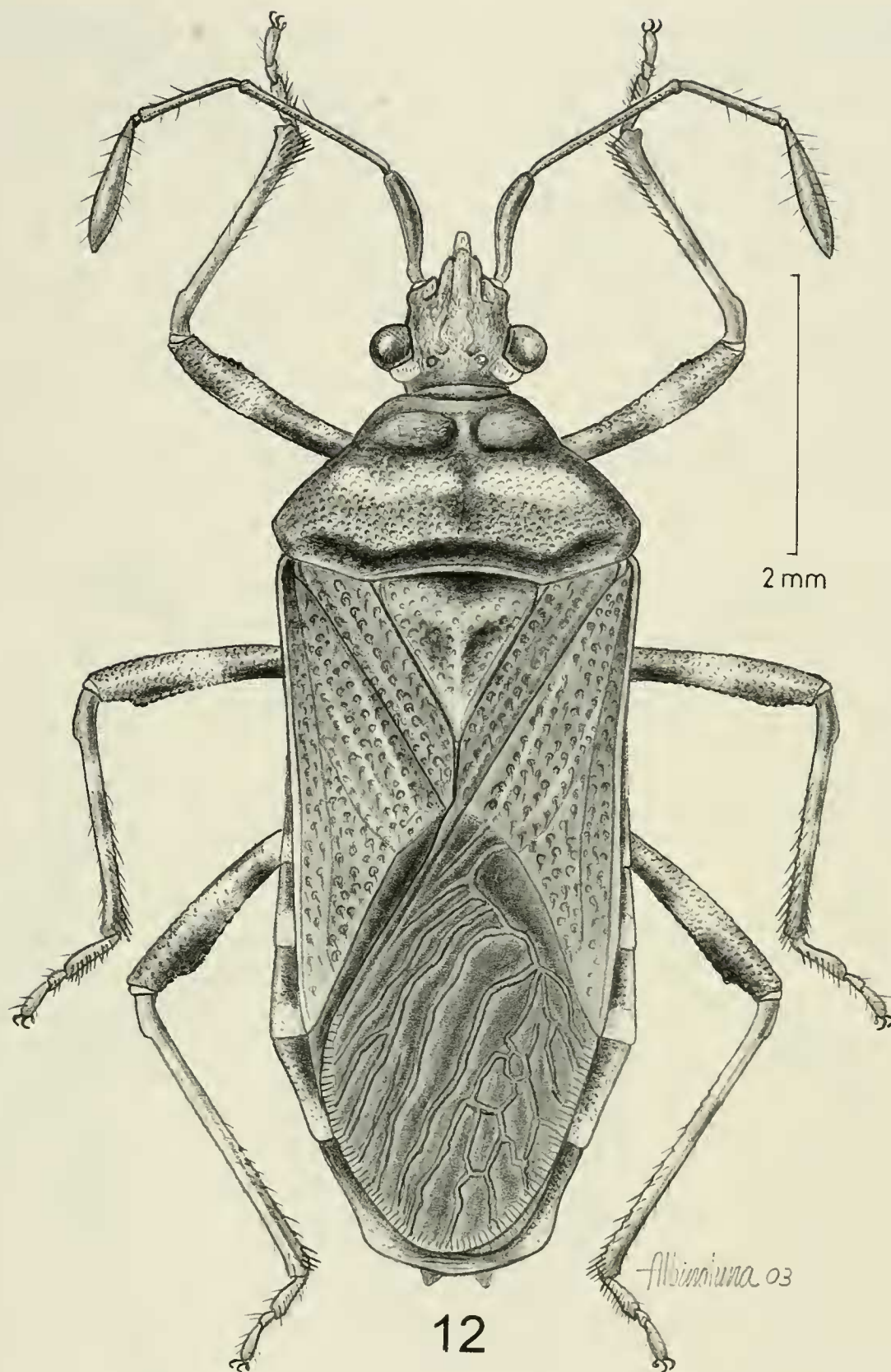


Fig. 12. Dorsal view of *Neohalohygia parallela*, male.

subbasal, other one near middle third; tarsi ochre yellow with orange reflections; abdominal sterna ochre yellow with punctures pale chestnut orange; pleural margins dark orange brown with posterior margin yellow; genital capsule dark chestnut orange.

Rostrum reaching anterior third of ab-

dominal sternite V. Genital capsule: Posteroventral edge in caudal view with broad, and open notch, with lateral arms blunt and rounded (Fig. 5). Paramere: Elongate, with apical third slightly curved (Fig. 10).

Female.—Unknown.

Type material.—Holotype: ♂, Dutch

New Guinea, Lordberg, 1000 m, (Kais Augustaf Exp.), 29–30 November 1912, S. G. Burgers (ZMHB).

Etymology.—From the Latin *tensus*, for stretched or extended, referring to the relatively narrow general shape of the insect.

KEY TO SPECIES OF *HALOHYGIA*

1. Posteroventral edge of male genital capsule in caudal view trilobate, with lateral arms rounded, and mesial lobe acute (Fig. 4); paramere with body robust and short (Fig. 9)
 . . . *impensa* Brailovsky and Barrera, new species
- Posteroventral edge of male genital capsule in caudal view bilobate (Figs. 3, 5); paramere with body elongate and slender (Figs. 10–11) 2
2. Posteroventral edge of male genital capsule in caudal view with broad and open notch, lateral arms blunt and rounded (Fig. 5); paramere with apical third slightly curved (Fig. 10)
 *tensa* Brailovsky and Barrera, new species
- Posteroventral edge of male genital capsule in caudal view simple, shallowly emarginate, lateral arms expanded and rounded (Fig. 3); paramere with apical third straight (Fig. 11)
 *inculta* Brailovsky and Barrera, new species

Neohalohygia Brailovsky and Barrera New Genus

Diagnosis.—*Neohalohygia* resembles *Halohygia* with the head dorsally flat, tylus apically globose and entire; interocellar space shorter than 0.35 mm; lower third of gonocoxae I conspicuously elongate and projected, blade-shaped (Figs. 6–7); antenniferous tubercle unarmed; pronotal disc clearly bilobed and tapering cephalad; in lateral view with anterior lobe distinctly lower than posterior lobe; body shorter than 9.60 mm and clothed with short decumbent silvery bristlelike setae; and postocular tubercle protuberant. In *Neohalohygia*, antennal segment III is the shortest, and IV longer than I, with the femora ventrally armed. In *Halohygia*, antennal segment IV is the shortest, and III subequal to I, with the femora unarmed.

Generic description.—Body small to medium sized, not depressed. *Head*: Longer than wide or as long as wide, pentagonal,

non-declivant, and dorsally flat; tylus apically globose and entire, extending anteriorly to and laterally higher than juga; juga unarmed, narrowed, shorter than tylus; antenniferous tubercle, genae, mandibular plate, and head in front of eye unarmed; antennal segment I robust, thickest, and slightly curved outward; segments II and III cylindrical, slender, and segment IV fusiform; antennal segment II longest, III shortest, and IV longer than I; ocelli weakly elevated and close to eye; preocellar pit deep; eyes spherical; postocular tubercle protuberant, globose; buccula rounded, elevated, short, not extending beyond antenniferous tubercle, angulate, without teeth, and posteriorly closed; rostrum reaching middle third of abdominal sternite IV.

Thorax: Pronotum wider than long, trapeziform, steeply declivant, clearly bilobed, with anterior lobe including collar shorter than posterior lobe; pronotal disc tapering cephalad with anterior lobe flattened and convex, and in lateral view distinctly lower than posterior lobe; collar wide, with posterior demarcation deeply incised by a narrow groove; frontal and humeral angles obtusely rounded, and not exposed; anterolateral borders obliquely straight, slightly sinuate, and emarginate; posterolateral borders weakly convex; posterior border straight; calli raised above pronotal disc, convex, hemispheric, separated along midline by a deep and short longitudinal furrow; posterior margin with distinct transverse impression; each lobe without wrinkles. Anterior lobe of metathoracic peritreme reniform, posterior lobe sharp, small; evaporative area reduced; mesosternum with shallow median longitudinal furrow.

Legs.—Male: Femora ventrally tuberculate; distal third of middle femur with two rows of short and blunt ventral spines; hind femur distally raised with two compact rows of medium-sized ventral spines, separated by a short longitudinal furrow. Female: Fore and middle femora ventrally tuberculate; hind femur similar to male.

Scutellum: Triangular, longer than wide;



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Fig. 13. Dorsal view of *Halohygia tensa*, male.

disc with Y-shaped elevation and posteriorly with shallow lateral depression; apex subacute and elevated as a minute bulb.

Hemelytron: Macropterous, extending beyond last abdominal segment.

Abdomen: Connexivum higher than terga; posterior angle of each connexival segment complete, not extending on a short spine; abdominal sterna with deep medial longitudinal furrow extending to anterior margin of sternite VI.

Integument: Body surface clothed with short, decumbent silvery bristlelike setae; dorsally rather dull, and ventrally shining; pubescence of antenna, femora and tibiae intermixed short and erect setae; antenna minutely granulate; posterior lobe of pronotum, scutellum, clavus, corium, ventral surface of head, thorax, abdominal sterna, and exposed parts of genital segments of both sexes strongly punctate; femora with small granules or tubercles along ventral and dorsal surface.

Male genitalia: Genital capsule: Posteroventral edge with pronounced U-shaped concavity, scarcely deep, and enclosed by two short, robust, subacute arms (Figs. 1–2).

Female genitalia: Abdominal sternite VII entire, without plica or fissura. Genital plates: Gonocoxae I enlarged dorsoventrally, with lower third conspicuously projected, bladelike, and directed outward and slightly upward; in caudal view closed, in lateral view straight; paratergite VIII short, triangular, with spiracle visible; paratergite IX squarish, larger than paratergite VIII (Figs. 6–7).

Etymology.—Named for its similarity to the genus *Halohygia*.

Type species.—*Neohalohygia parallela* Brailovsky and Barrera, new species.

***Neohalohygia parallela* Brailovsky and Barrera, new species**

(Figs. 1–2, 6–7, 12)

Description.—*Measurements*: Male first, then female: Head length 1.24, 1.30; width across eyes 1.24, 1.28; interocular space

0.62, 0.72; interocellar space 0.22, 0.30; preocular distance 0.76, 0.86; length antennal segments: I, 1.00, 0.98; II, 1.44, 1.48; III, 0.74, 0.78; IV, 1.08, 1.08. Pronotum: Total length 1.62, 1.88; maximum width across anterior lobe 1.60, 1.80; maximum width across posterior lobe 2.80, 3.16. Scutellar length 1.28, 1.48; width 1.20, 1.40. Total body length 7.58, 8.55.

Male.—*Dorsal coloration*: Head chestnut orange, with dorsal surface of postocular tubercle yellow; antennal segments I to III ochre yellow with orange reflections, and IV orange with a subdistal yellow ring; pronotal disc chestnut orange with anterolateral margins and irregular transverse fascia above humeral angles light yellow; scutellum chestnut orange with apex yellow; clavus and corium chestnut orange with costal margin yellow; hemelytral membrane pale brown; connexivum dark orange brown with apical margin yellow; dorsal abdominal segments II to VI bright orange and VII bright orange with apical third dark orange brown. *Ventral coloration*: Head bright chestnut orange with area adjacent to eyes yellow; rostral segments I to IV ochre yellow with chestnut reflections; thorax bright chestnut orange with yellow marks at middle third of propleuron, mesopleuron, and metapleuron; anterior and posterior lobe of metathoracic peritreme bright chestnut orange; coxae and trochanters bright chestnut orange; femora and tibiae bright chestnut orange with two yellow rings one subbasal, other near middle third; tarsi yellow with orange reflections; abdominal sterna bright chestnut orange with irregular and scattered yellow marks; pleural margin bright chestnut orange with posterior margin yellow; genital capsule bright chestnut orange.

Female.—Similar to male. Connexival segments VIII and IX bright orange with posterior margin yellow; dorsal abdominal segments VIII and IX bright orange; genital plates bright chestnut orange with upper margin of paratergite VIII and IX yellow.

Type material.—Holotype: ♂, Dutch

New Guinea, Lordberg (Kais Augustaf Exp.), 6 December 1912, S. G. Burgers (ZMHB). Paratype: 1 ♀, Neth. New Guinea, Vogelkop, Bomberi, 700–900 m, 5 June 1959, J. L. Gressitt (BPBM).

Etymology.—From the Latin *parallelus*, referring to the nearly parallel sides of the body.

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